Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process of isolating ~~an extract~~ purified fraction from a *Euphorbia* obesa plant, comprising:

preparing a sample of said plant by:

~~washing~~ rinsing said plant ~~in~~ with water,

removing and discarding root, outer cortex, and latex material~~fraction~~ of the plant, thereby forming the sample from the remaining material of the plant comprised substantially of a bulb portion of the plant;

dissolving said sample with a first solvent comprising methanol and chloroform to form a solution;

separating said solution into an aqueous upper layer and an aqueous pulp-like lower layer~~liquid and a pulp fraction~~;

isolating the aqueous pulp-like lower layer from the aqueous upper layer;

exchanging the first solvent for a second solvent comprising a solvent chosen from the group consisting of dimethylsulfoxide, methanol, or hexane:chloroform; and

purifying said pulp fraction to produce a purified fraction which induces apoptosis and inhibits growth of a cancerous cell.

2. (cancelled)

3. (original) The process of claim 1 wherein said plant weighs less than 100 g.

4. (cancelled)

5. (original) The process of claim 1 wherein said process further comprises exchanging said first solvent of said pulp fraction with a second solvent.

6. (original) The process of claim 5 wherein said step of solvent exchange comprises evaporating said pulp fraction into a concentrate and dissolving said concentrate into a second solvent.

7. (original) The process of claim 5 wherein said second solvent is selected from the group consisting of DMSO, methanol and a combination of hexane and chloroform.

8. (original) The process of claim 1 wherein said purifying step comprises eluting said pulp fraction through a silica gel column with 90% chlorine and 10% methanol.

9. (original) The process of claim 1 wherein said purifying step comprises eluting said pulp fraction through a silica gel column with 80% hexane and 20% ethyl acetate.

10. (original) The process of claim 1 wherein said purifying step comprises eluting said pulp fraction through a silica gel column with 70% hexane and 30% ethyl acetate

11. (original) The process of claim 1 wherein said purifying step further comprises sequentially eluting said pulp fraction with DEAE-Sephacel in chlorine with 70% chlorine and 30% methanol.

12. (original) The process of claim 1 wherein said purifying step further comprises resolving said pulp fraction by reverse phase HPLC with 95% methanol and 5% water.

13. (original) The process of claim 1 further comprising detecting the bioactivity of said pulp fraction by incubating said fraction with an amount of LnCaP prostate cancer cells and determining apoptosis in 50% or greater of said cells.

14. (original) The process of claim 1 wherein said cancerous cell is a mammalian cell.

15. (original) The process of claim 14 wherein said cancerous cell is a human cell.

16. (original) The process of claim 1 wherein said cancerous cell is a melanoma cell.

17. (original) The process of claim 16 wherein said melanoma cell is selected from the group consisting of a Hs294T, A375P, A375M, M-21, AAB-1, AAB-2 and B-16 cell.

18. (original) The process of claim 16 wherein said melanoma cell is a B-16 cell.

19. (original) The process of claim 1 wherein said cancerous cell is a non-small cell lung cancer cell.

20. (original) The process of claim 19 wherein said non-small cell lung cancer cell is selected from the group consisting of a H322 and H522 cell.

21. (original) The process of claim 1 wherein said cancerous cell is a prostate cancer cell.

22. (original) The process of claim 21 wherein said prostate cancer cell is selected from the group consisting of a LnCaP and PC-3 cell.

23. (original) The process of claim 21 wherein said prostate cancer cell is a LnCaP cell.

24. (original) The process of claim 1 wherein said cancerous cell is a breast carcinoma cell.

25. (original) The process of claim 24 wherein said breast carcinoma cell is selected from the group consisting of a MCF-7, MCF-7/TNFR and SKBr-3 cell.

26. (original) The process of claim 1 wherein said cancerous cell is an ovarian cancer cell.

27. (original) The process of claim 26 wherein said ovarian cancer cell is a Hey cell.

28. (original) The process of claim 1 wherein said cancerous cell is a lymphoma cell.

29. (original) The process of claim 28 wherein said lymphoma cell is selected from the group consisting of a Jurkat and U937 cell.

30. (original) The process of claim 1 wherein said cancerous cell is a leukemia cell.

31. (original) The process of claim 30 wherein said leukemia cell is selected from the group consisting of a K562, MOLT-4 and THP-9 cell.

32. (previously presented) A method for inducing apoptosis and growth inhibition of a cancerous cell comprising

isolating an extract of *Euphorbia* obesa according to the steps of claim 1; and

contacting said cancerous cell with effective amount of said extract.

33. (original) The method of claim 32 wherein said extract is derived from the bulb portion of the plant.

34. (original) The method of claim 32 wherein said extract comprises a single compound.

35. (Currently Amended) The method of claim 32 wherein said ~~bioactive~~ extract comprises a plurality of compounds.

36. (original) The method of claim 32 wherein said cancerous cell is contacted by said extract *in vitro.*

37. (original) The method of claim 32 wherein said cancerous cell is contacted by said extract *in vivo*.

38. (original) The method of claim 37 wherein said effective amount is administered directly to a tumor site.

39. (original) The method of claim 38 wherein said effective amount is further administered intra-peritonially.

40. (original) The method of claim 32 wherein said efffective amount is at least 0.5 mg.

41. (Previously Presented) The method of claim 33 wherein said cancerous cell is a mammalian cell.

42. (Previously Presented) The method of claim 41 wherein said cancerous cell is a human cell.

43. (Previously Presented) The method of claim 33 wherein said cancerous cell is a melanoma cell.

44. (Previously Presented) The method of claim 43 wherein said melanoma cell is selected from the group consisting of a Hs294T, A375P, A375M, M-21, AAB-1, AAB-2 and B-16 cell.

45. (Previously Presented) The method of claim 43 wherein said melanoma cell is a B-16 cell.

46. (Previously Presented) The method of claim 33 wherein said cancerous cell is a non-small cell lung cancer cell.

47. (Previously Presented) The method of claim 46 wherein said non-small cell lung cancer cell is selected from the group consisting of a H322 and H522 cell.

48. (Previously Presented) The method of claim 33 wherein said cancerous cell is a prostate cancer cell.

49. (Previously Presented) The method of claim 48 wherein said prostate cancer cell is selected from the group consisting of a LnCaP and PC-3 cell.

50. (Previously Presented) The method of claim 48 wherein said prostate cancer cell is a LnCaP cell.

51. (Previously Presented) The method of claim 33 wherein said cancerous cell is a breast carcinoma cell.

52. (Previously Presented) The method of claim 51 wherein said breast carcinoma cell is selected from the group consisting of a MCF-7, MCF-7/TNFR and SKBr-3 cell.

53. (Previously Presented) The method of claim 33 wherein said cancerous cell is an ovarian cancer cell.

54. (Previously Presented) The method of claim 53 wherein said ovarian cancer cell is a Hey cell.

55. (Previously Presented) The method of claim 33 wherein said cancerous cell is a lymphoma cell.

56. (Previously Presented) The method of claim 55 wherein said lymphoma cell is selected from a group consisting of a Jurkat and U937 cell.

57. (Previously Presented) The method of claim 33 wherein said cancerous cell is a leukemia cell.

58. (Previously Presented) The method of claim 57 wherein said leukemia cell is selected from a group consisting of a K562, MOLT-4 and THP-9 cell.

59. (Currently Amended) A process of isolating a purified fraction from a *Euphorbia* obesa plant, comprising the steps of:

preparing a sample of said plant by rinsing said plant with water and removing and discarding said plant's outer cortex, latex material, and roots;

reducing said sample into a slurry;

dissolving said slurry with a first solvent consisting essentially of chloroform and methanol to form a solution;

separating said solution into a upper liquid layer and a lower liquid pulp fraction; and

purifying said pulp fraction with a silica gel column eluted with a solvent system chosen from the group consisting of 90% chlorine and 10% methanol, 80% hexane and 20% ethyl acetate, and 70% hexane and 30% ethyl acetate to produce a purified fraction which induces apoptosis and inhibits growth of a cancerous cell.